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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,886	02/11/2002	Gregory S. Snider	10008139-1	3539

7590 01/14/2005  
HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER

AMIN, NIRAV S

ART UNIT PAPER NUMBER

2115

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/068,886

Applicant(s)

SNIDER, GREGORY S.

Examiner

Nirav S Amin

Art Unit

2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

Claims 1-26 are pending in the application.

#### ***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "345". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowen (Appl. S/N: 09/771,963) in view of Garey (USPN: 6,662,302).

As per claim 1, Bowen teaches:

parsing a source code [Para. [0113]];  
performing a plurality of optimizations on the parsed code [Para. [0113]];  
generating a configuration instruction set based on the optimized source code  
[Para. [0298], Figure 11];

Bowen does not teach automatically selecting one of the generated configuration instruction sets according to a user-defined criteria.

Garey teaches:

automatically selecting one of the plurality of generated configuration instruction sets according to a user-defined criteria, the selected configuration instruction set being used to configure hardware [Column 3, lines 32-45; The alternative logic configuration is chosen in response to the input data, the input data is viewed as the user criteria.]

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Bowen and Garey to obtain a circuit which can perform a wide variety of operations to accommodate various pluralities of input data [Column 1, lines 40-42].

As per claim 11, Bowen teaches:

generating an internal representation of the source code [(1104), Figure 11];  
analyzing data flow properties of the internal representation in order to optimize the internal representation [Para. [0113]];  
automatically generating a configuration instruction set based on the optimized internal representation [(1106), Figure 11];

generating a plurality of configuration instruction sets based on the optimized source code [(1106), Figure 11]; and

Bowen does not expressly teach automatically selecting one of the generated configuration instruction sets according to a user-defined criteria.

Garey teaches:

automatically selecting one of the plurality of generated configuration instruction sets according to a user defined criteria, the selected configuration instruction set being used to configure hardware [Column 3, lines 32-45; The alternative logic configuration is chosen in response to the input data, the input data is viewed as the user criteria.].

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Bowen and Garey to obtain a circuit which can perform a wide variety of operations to accommodate various pluralities of input data [Column 1, lines 40-42].

As per claim 17, Bowen teaches:

a processor (1010) operable to receive source code;

a compiler (302, Figure 3) automatically generating a configuration set from the received source code; and

a configurable hardware device receiving the selected configuration instruction set and being configured based on the received configuration instruction set (1108, Figure 11).

Bowen does not expressly teach selecting one of the plurality of configuration sets based on user defined criteria.

Garey teaches:

selecting one of the plurality of generated configuration instruction sets according to a user defined criteria [Column 3, lines 32-45; The alternative logic configuration is chosen in response to the input data, the input data is viewed as the user criteria.].

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Bowen and Garey to obtain a circuit which can perform a wide variety of operations to accommodate various pluralities of input data [Column 1, lines 40-42].

As per claim 23, Bowen teaches:

means for parsing a source code (204, Figure 2);

means for performing a plurality of optimizations on the parsed code [Para. [0113]];

means for generating a configuration instruction set based on the optimized source code (1106, Figure 11);

Bowen does not expressly teach:

means for automatically selecting one of the plurality of generated configuration instruction sets according to a user-defined criteria.

Garey teaches:

automatically selecting one of the plurality of generated configuration instruction sets according to a user-defined criteria, the selected configuration instruction set being used to configure hardware [Column 3, lines 32-45; The alternative logic configuration is chosen in response to the input data, the input data is viewed as the user criteria.].

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Bowen and Garey to obtain a circuit which can perform a wide variety of operations to accommodate various pluralities of input data [Column 1, lines 40-42].

As per claims 3, 14 and 25, Garey teaches:

determining characteristics for the each of the plurality of the configurable instruction sets and selecting one of the plurality of configuration instructions sets based on determined the characteristics of that set, wherein the characteristics are associated with the user-defined criteria [Column 3, lines 39-49].

As per claims 4 and 26, Garey does not expressly teach receiving simulation results associated with each configuration instruction set. At the time of the invention it would be obvious to a person of ordinary skill in the art to receive simulation results of each configuration instruction set.

As per claims 7 and 15, Bowen teaches:

the user defined criteria is the speed to complete a computation, size of circuit [Para. [0123]. Bowen does not expressly teach the user defined criteria is circuit power. Garey teaches the user defined criteria is circuit power [Column 3, lines 45-49]. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the teachings of Bowen and Garey to include more test parameters.

As per claims 8 and 19, Bowen teaches generating an internal representation of the source code [(1104), Figure 11];

As per claims 9 and 16, Bowen teaches configuring hardware using the selected configuration instruction set [(1108), Figure 11].

As per claim 10, Bowen teaches using the selected configuration instruction set to configure an FPGA or a custom integrated circuit [Para. 0298].

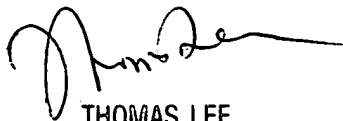
**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nirav S Amin whose telephone number is (571) 272-3821. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on (571) 272-3667. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NA

  
THOMAS LEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100